APRIL/MAY 2024

CBT21/FBT21/BBT21 — BIOCHEMISTRY

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

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1. What is hexoses? Give example.
2. Define bioenergetics.
3. What is Zwitter ion?
4. Write the differences between essential and non-essential fatty acids.
5. What are saturated fatty acids? Give example.
6. Define simple and complex lipids with examples.
7. Define nucleoside. Give example.
8. Mention any two non-protein enzymes.
9. What is thyroxin?
10. What are water-soluble vitamins? Give example.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) What is polysaccharides? Explain the structure of starch and cellulose.

Or

(b) Explain briefly about Glycogenesis.

12. (a) Enumerate the structure of protein with diagram.

Or

(b) Define amino acid. How are they classified?

13. (a) Explain β-oxidation of fatty acids.

Or

(b) What is lipids? Describe structure, classification and function of lipids.

14. (a) Explain DNA structure and its types.

Or

(b) Write about classification and nomenclature of enzymes.

15. (a) Classify and enumerate vitamins. Write about its types and deficiency disorders.

Or

(b) Discuss about principle and applications of thin layer chromatography.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Elucidate the reactions of citric acid cycle with diagram.

17. Explain the transamination and deamination reactions in amino acid metabolism.

18. Explain the cholesterol biosynthesis pathway and its regulation.

19. Define enzymes. Explain about mechanism of enzyme action.

20. What is electrophoresis? Explain SDS-PAGE.

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